

FIG. 1(a)

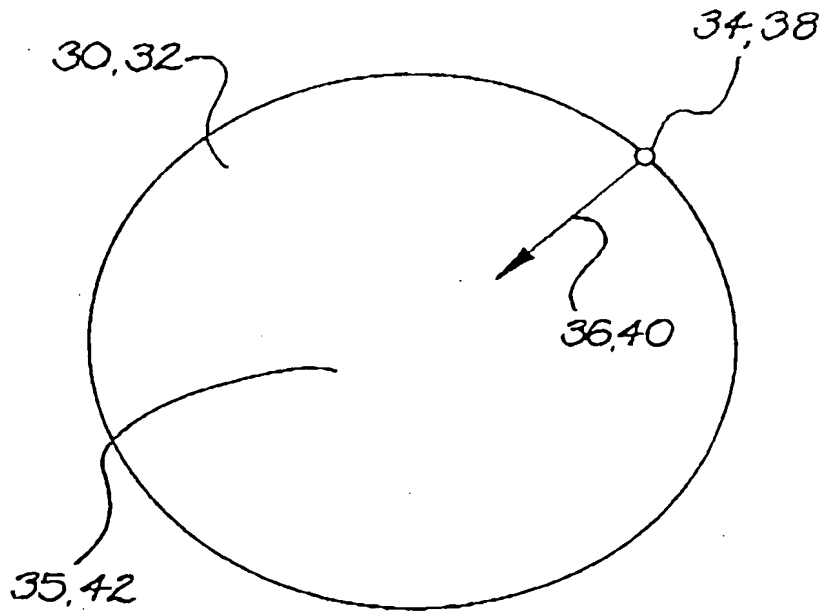
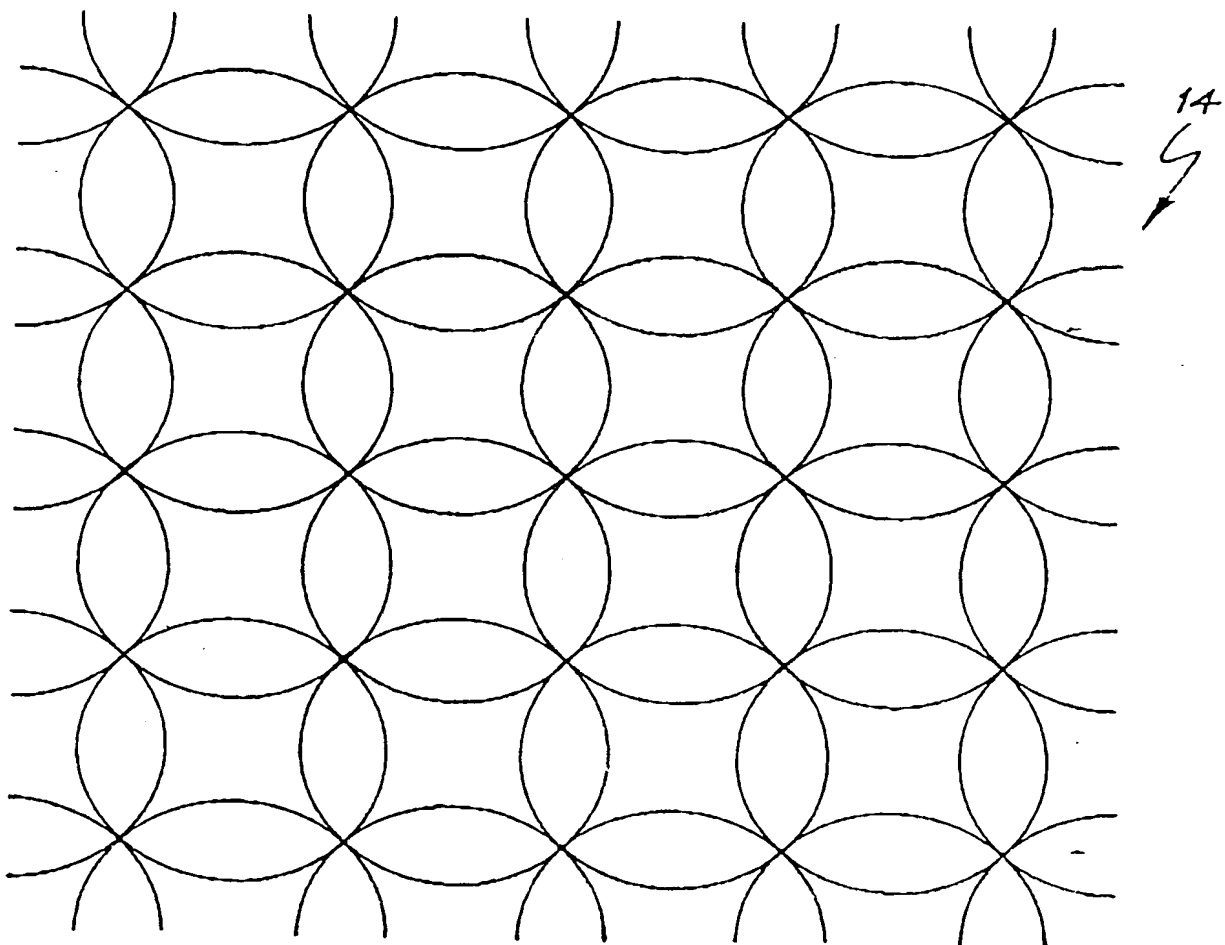
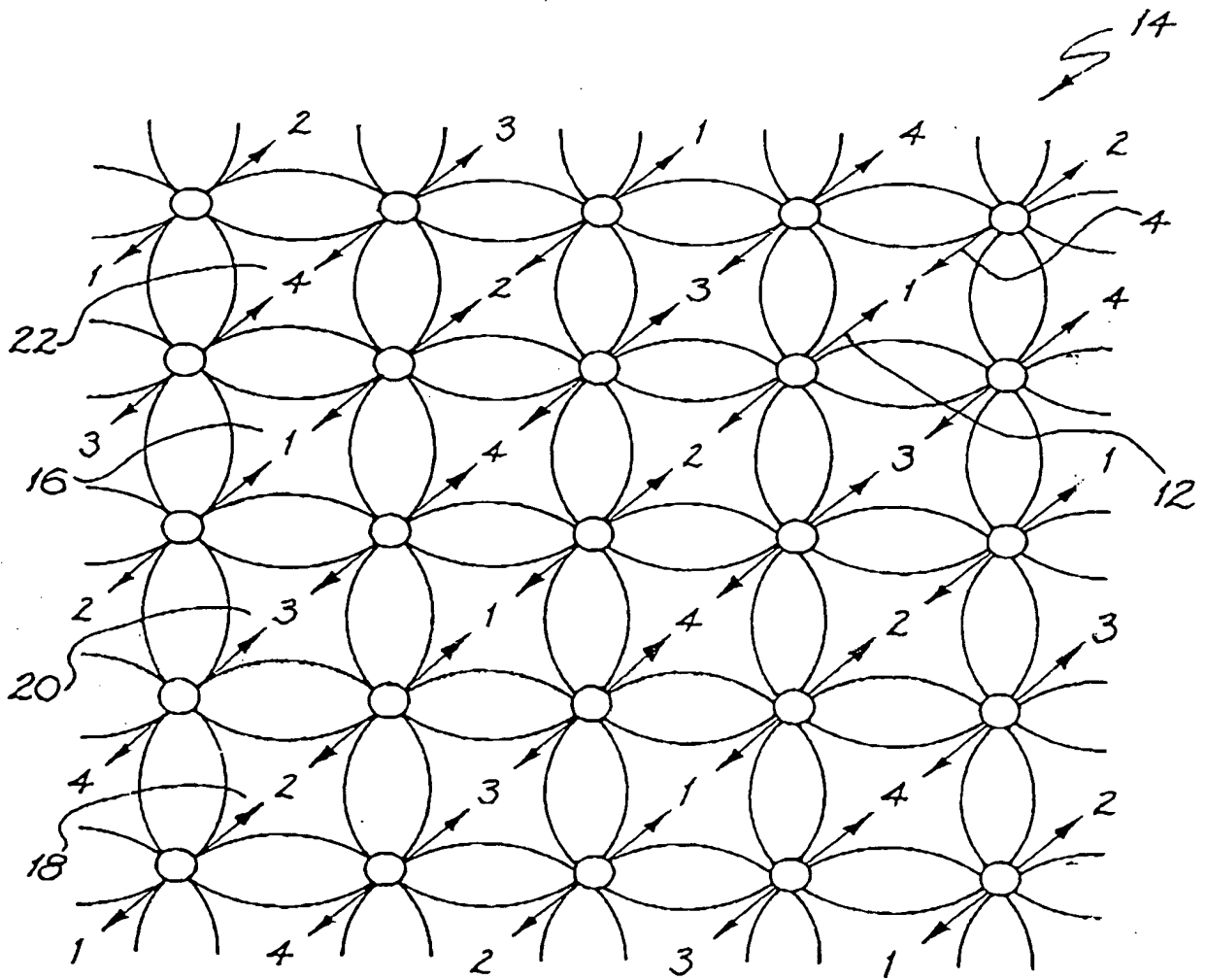


FIG. 1(b)



ARRAY OF CELLS FORMING A COVERAGE FOOTPRINT

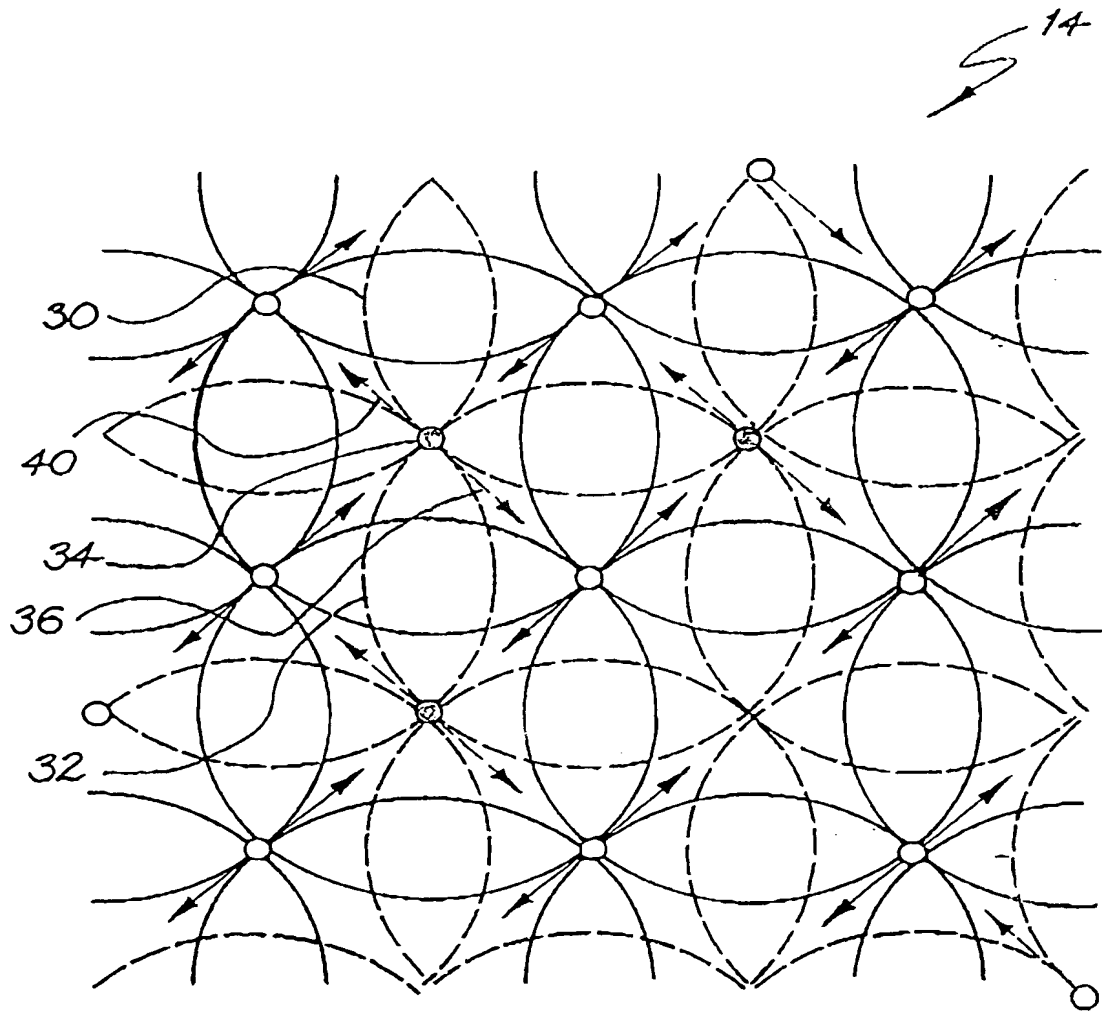
FIG. 2



BACK TO BACK EDGE FED OVERLAID FOR DUAL
COVERAGE

CELLS SERVICED TWICE WITH SAME FREQUENCY.
FREQUENCY SET (1,2,3,4)

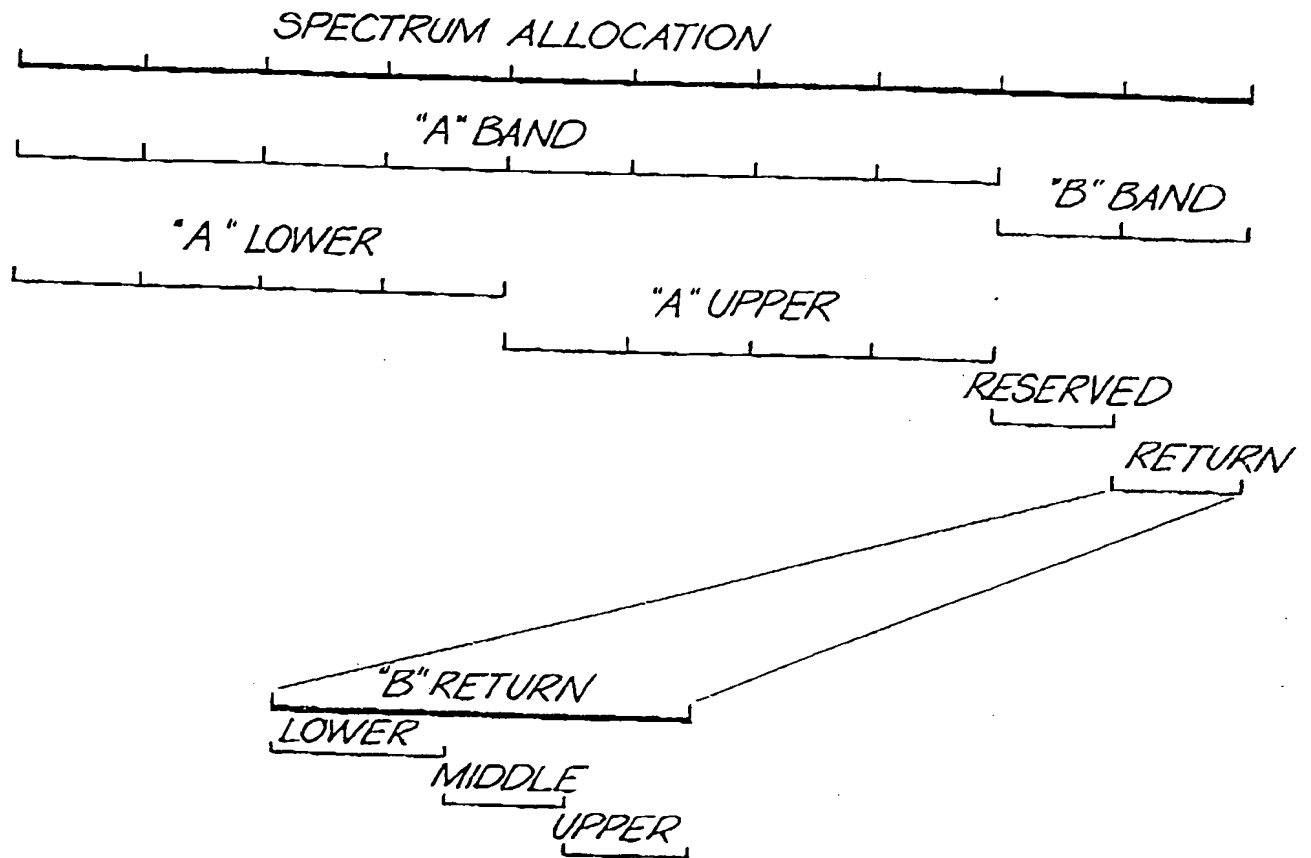
FIG. 3



ORTHOGONAL NETWORKS (BROADCAST & BROADBAND OVERLAY)

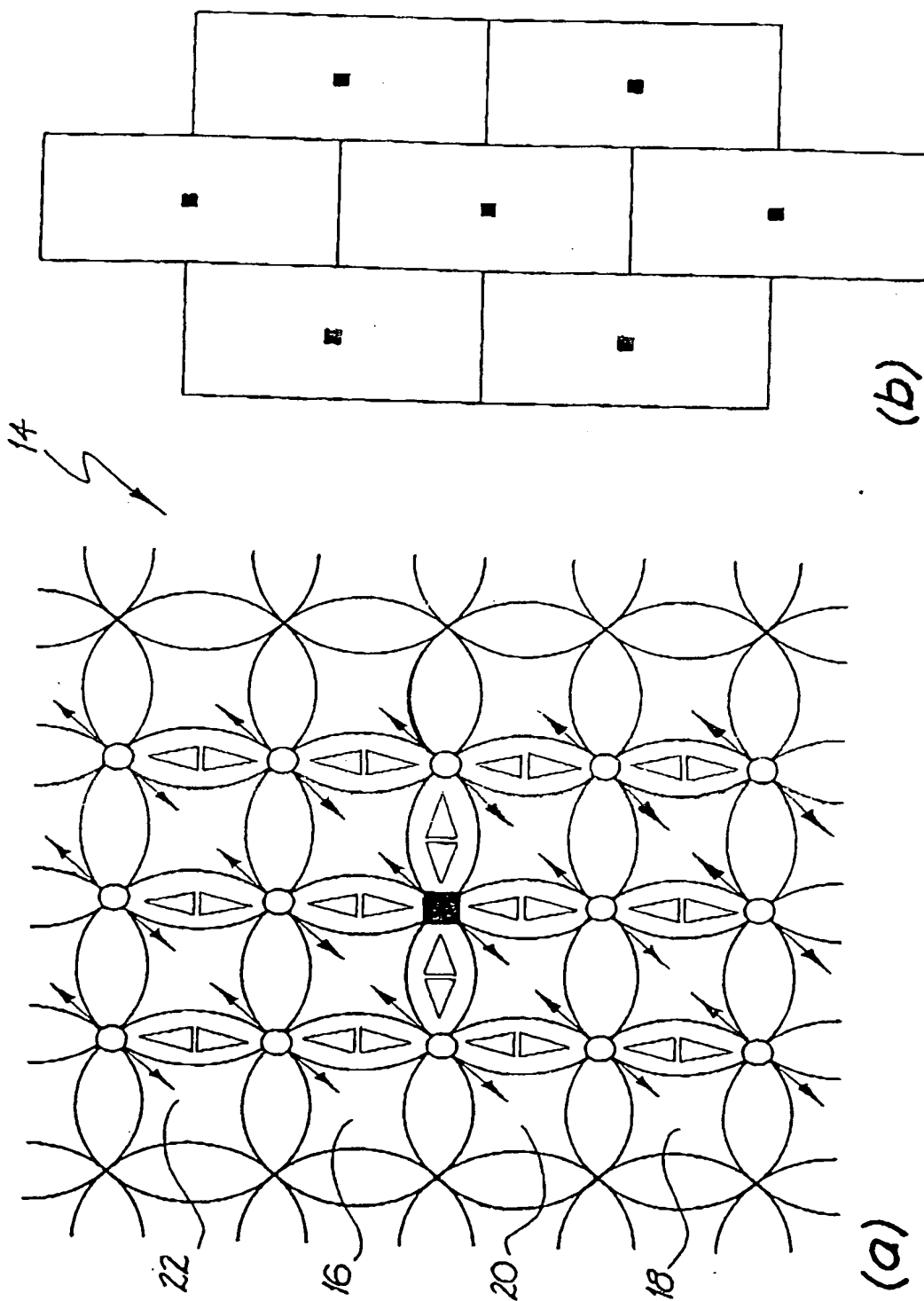


FIG. 4



TYPICAL SPECTRUM ALLOCATION

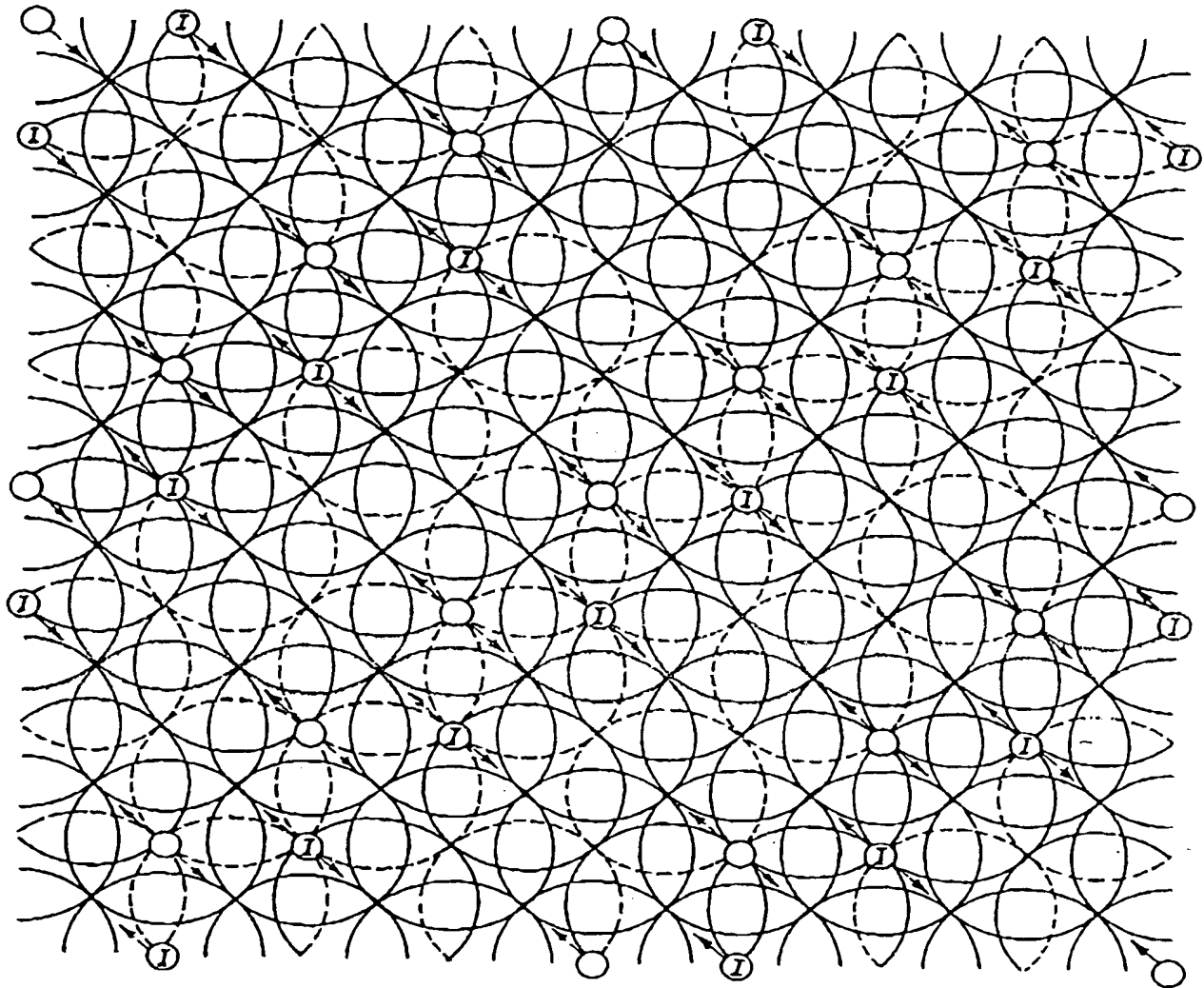
FIG. 5



INTERCONNECTION OF CELLS (CLUSTER OF 15)

◁ ▷ INTERCONNECTION LINKAGE ■ NODE

FIG. 6



BROADCAST NETWORK (FM MODULATION)

○ VERTICAL
POLARISATION

○ HORIZONTAL
POLARISATION

Ⓢ INDICATES HALF CHANNEL
INTERLEAVED TRANSMISSIONS

FIG. 7

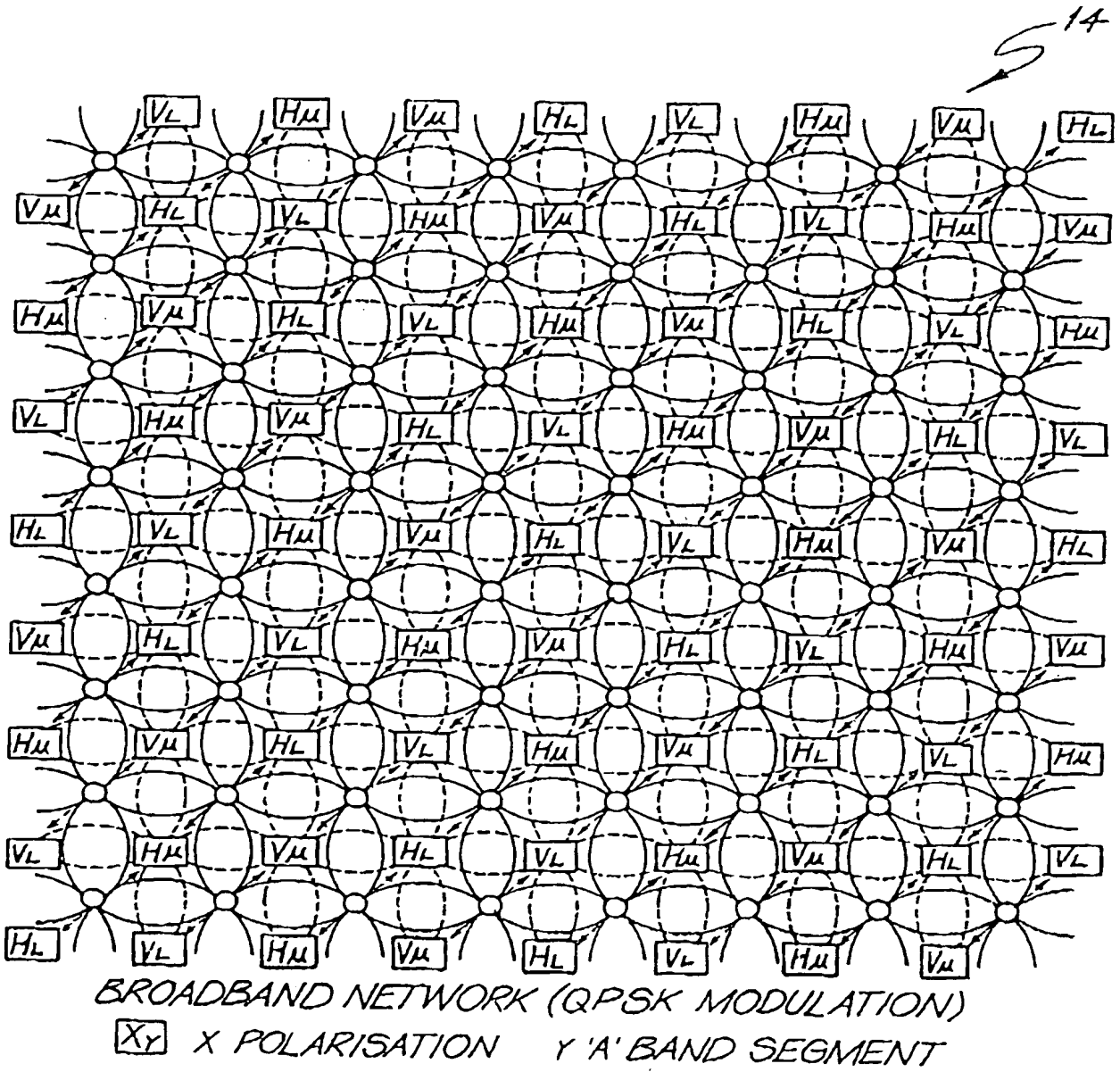
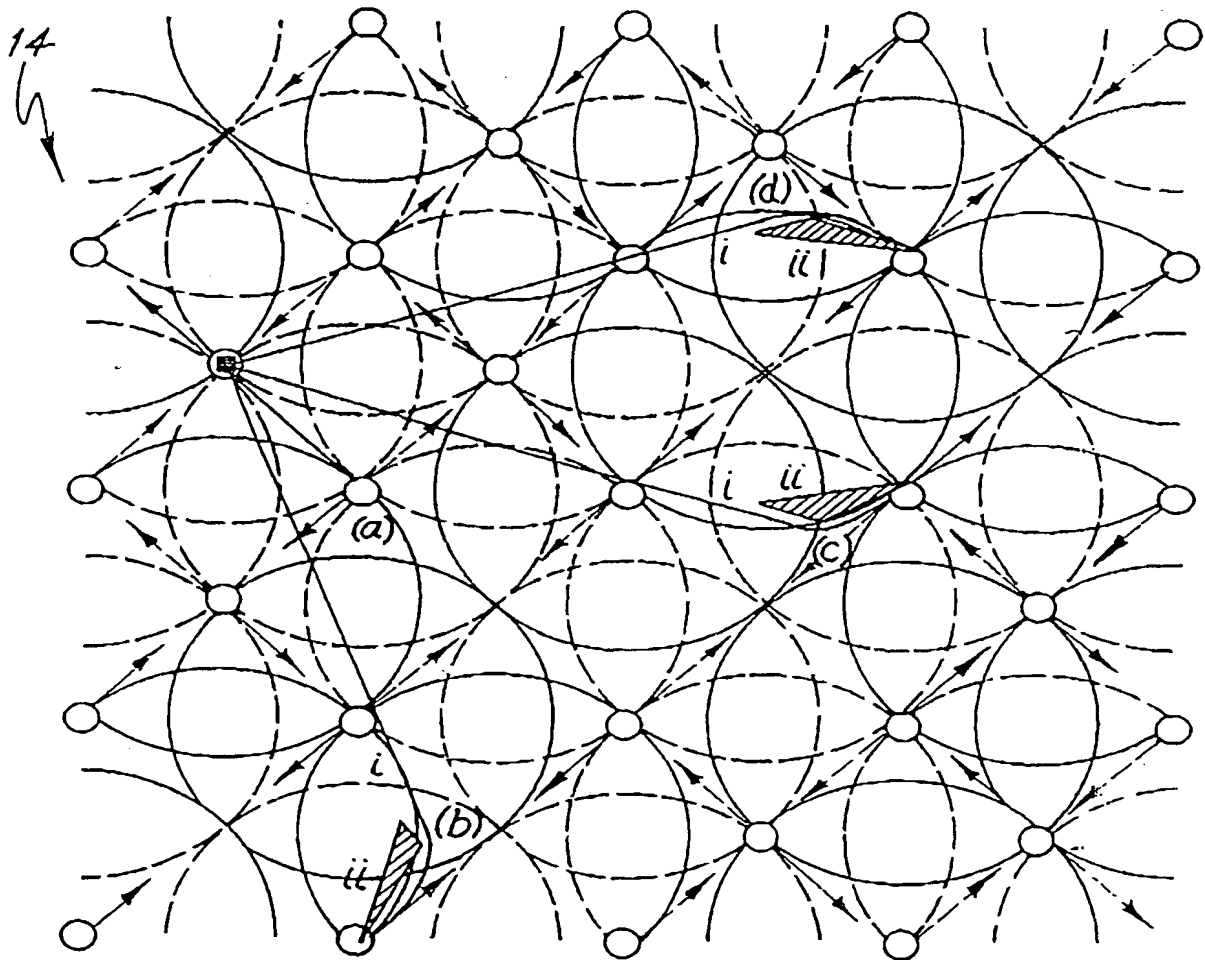


FIG. 8

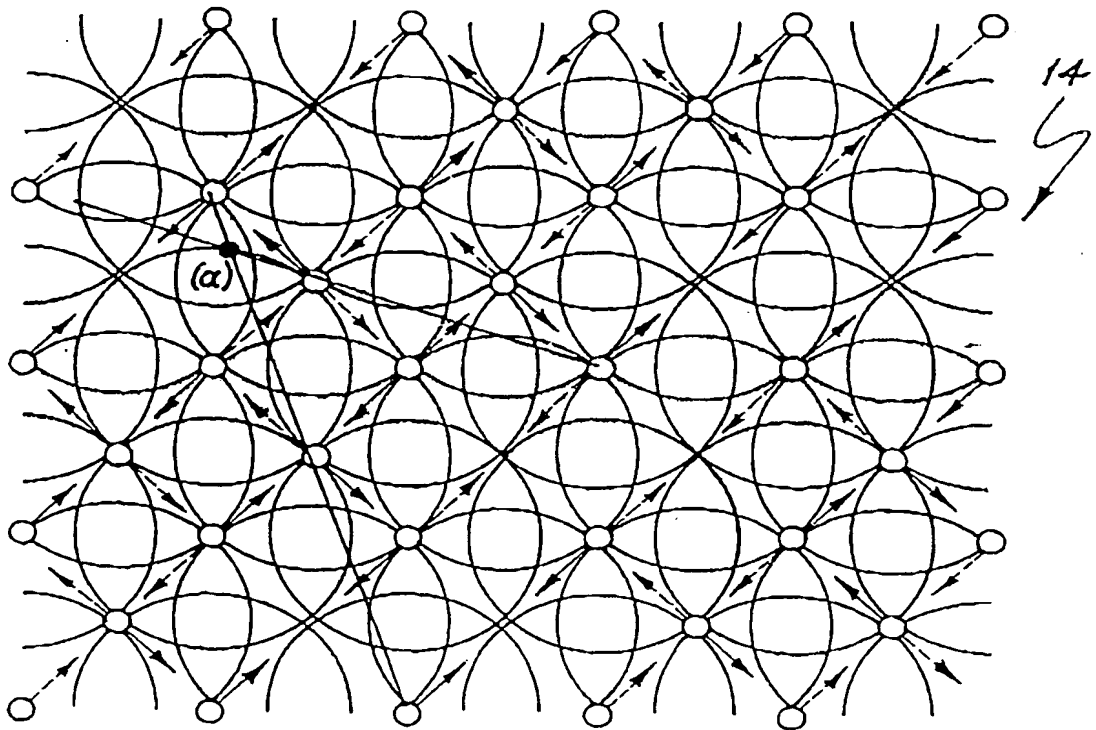


(a) TANGENTIAL

(b) (c) (d) i. DISTANCE RATIO
ii. ALTERNATIVE PATH

BROADCAST INTERFERENCE ON BROADBAND
OUTBOUND

FIG. 9

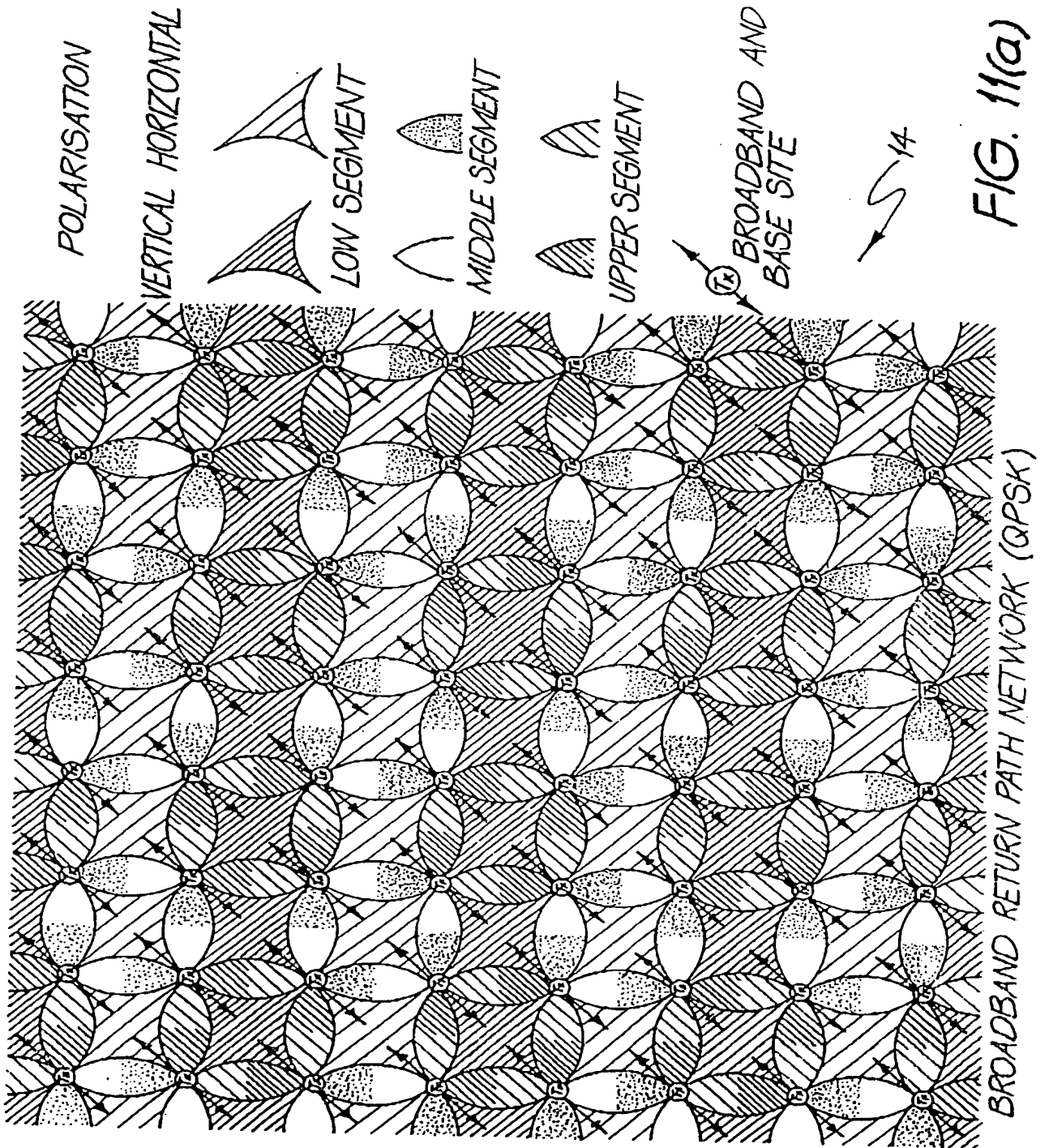


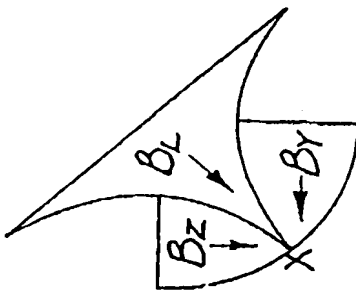
(α) AT POINT (α) THE ALTERNATIVE PATH MAY ALSO BE UNAVAILABLE. IN SUCH AREAS MICRO-CELLS INFILLS COULD BE USED TO PROVIDE ACCESS TO SERVICES.

AT OTHER POINTS ALONG THE LINE OF INTERFERENCE THE ALTERNATIVE PATH MAY BE AVAILABLE IF REQUIRED.

BROADBAND OUTBOUND INTERFERENCE UPON BROADCAST.

FIG. 10





(a)

X BROADBAND BASE SITE

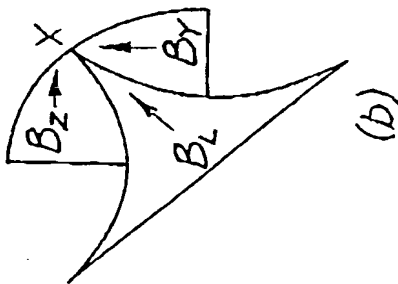
B_y , B_z APPROPRIATE MEMBER OF B_M, B_u SET

B_L , B_M, B_u SEGMENT OF 'B' BAND

→ RETURN PATH DIRECTION INDICATOR

NOTE:

FOR A GIVEN BROADBAND BASE SITE ONLY ONE USE OF THE VERTICAL AND HORIZONTAL SET MEMBERS OF THE 'B' BAND MAY BE INCOMING. HENCE ALLOCATION FOR THE EXAMPLES (a) AND (b) ILLUSTRATED WOULD BE ON AN EXCLUSIVITY BASIS IF SITE X IS COMMON TO BOTH.



(b)

RETURN PATH TYPICAL SERVICE AREA

FIG. 11(b)

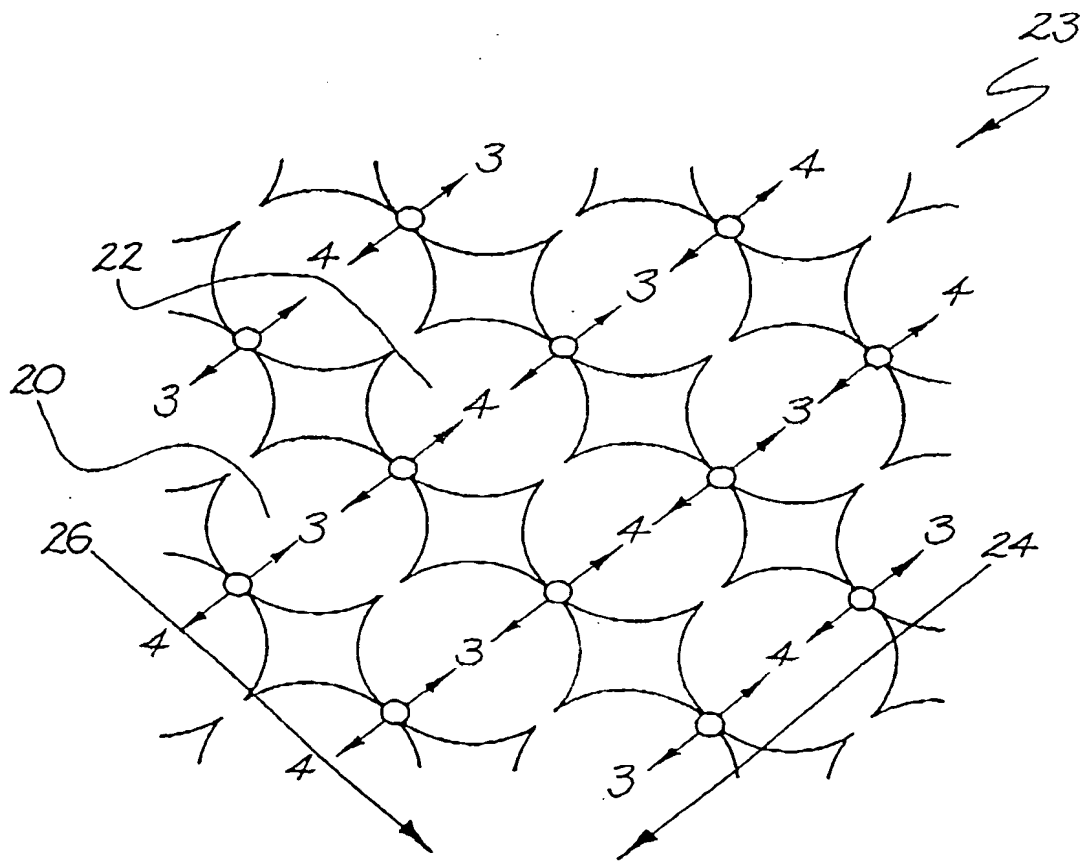


FIG. 12(a)

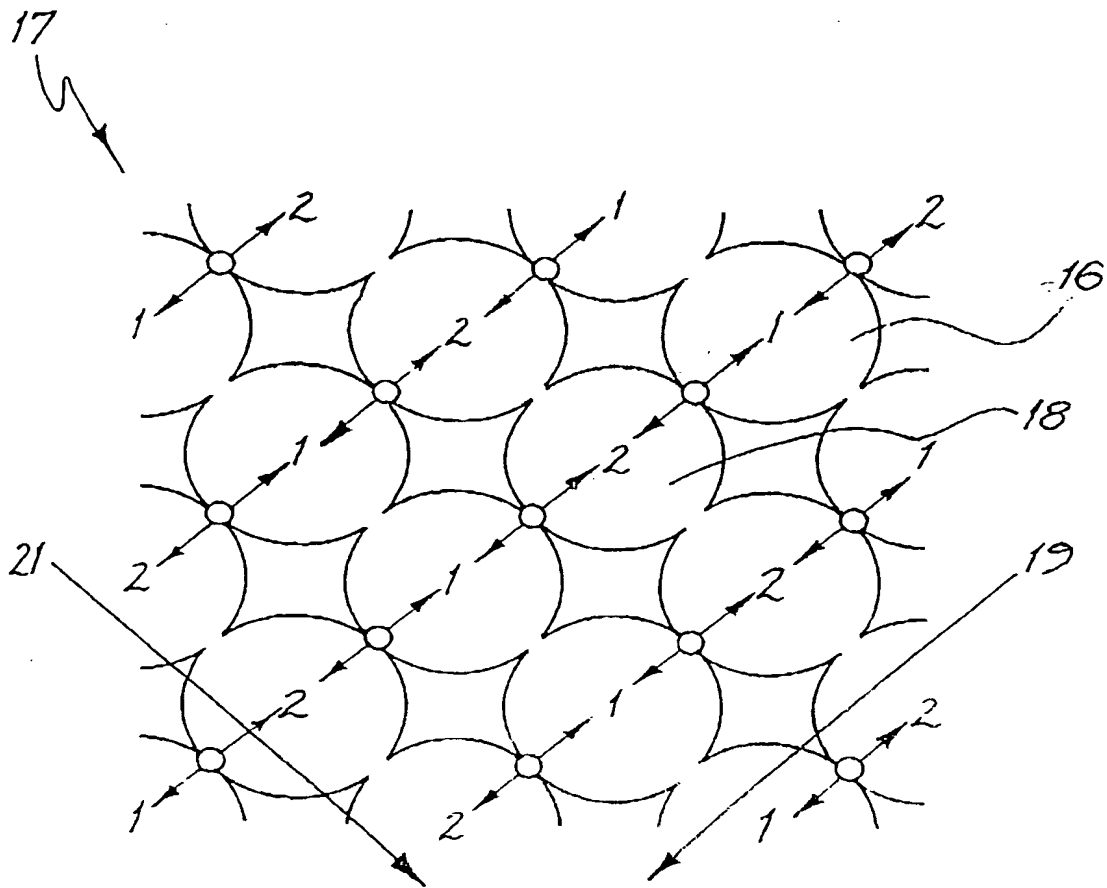


FIG. 12(b)